



State of Alaska
Department of Fish and Game
Sportfish Division

Nomination Form
Fish Distribution Database

Region

SCN

USGS Quad(s)

Fish Distribution Database Number of Waterway

212-20-10080-2157(2159)(2193)(2261)

Name of Waterway

☐ USGS Name

☐ Local Name

☐ Addition

☐ Deletion

☐ Correction

☒ Backup Information

2225-0020

For Office Use

Nomination #	05-066	ADF&G Fisheries Scientist	Date
Revision Year:	2007	ADNR OHMP Operations Mgr.	Date
Revision to:	Atlas _____ Catalog _____ Both <input checked="" type="checkbox"/>	FDD Project Biologist	10/10/05
Revision Code:	F-1	Cartographer	Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>

IMPORTANT: Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes; etc. Attach a copy of a map showing location of mouth and observed upper extent of each species, as well as other information such as: specific stream reaches observed as spawning or rearing habitat; locations, types, and heights of any barriers; etc.

Comments:

Supplemental data for streams
RIR ZA92-26
Adult salmon enumeration surveys
CR Highway Routes

Name of Observer (please print):

Signature:

Address:

Date:

This certifies that in my best professional judgment and belief the above information is evidence that this waterbody should be included in or deleted from the Fish Distribution Database.

Signature of Area Biologist:

Date:

Revision 02/05

Name of Area Biologist (please print):

05-066

ADULT SALMON ENUMERATION SURVEYS
ON PROPOSED COPPER RIVER HIGHWAY ROUTES

REGIONAL INFORMATION REPORT¹ 2A92-26

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¹ Contribution 2C92-07 from the Prince William Sound Area. The Regional Information Report Series was established in 1987 to provide an information system for all unpublished divisional reports. These reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may contain preliminary data; this information may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or the Division of Commercial Fisheries.

TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES	iii
LIST OF FIGURES	iii
ABSTRACT	iv
INTRODUCTION	1
METHODS	1
RESULTS	1
DISCUSSION	1

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1. Aerial escapement indices by date and location for sockeye salmon in the Copper River, 1992.....	3
2. Aerial escapement indices by date and location for coho salmon in the Copper River, 1992.....	4
3. Aerial survey indices of sockeye salmon within the Copper River drainage, 1978-1991.....	5

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
1. Lower Tasnuna River and Whitting Falls, Copper River, 1992.....	6
2. Upper Tasnuna River drainage, Copper River, 1992.....	7
3. Cleave Creek drainage, Copper River, 1992.....	8
4. Tiekell River and Tiekell Lake drainage, Copper River, 1992.....	9
5. Uranatina River drainage, Copper River, 1992.....	10

ABSTRACT

The Department of Transportation is studying the possibility of extending the Copper River Highway north to the interior. A total of four different routes are under consideration. The first is along the old railroad bed along the Copper River to Chitina; the second is through the Tasnuna Valley; the third is along the Tiekol River; and the fourth along the eastern coast of Prince William Sound. This study identified adult salmon spawning in drainages along three of the proposed routes. A total of five surveys were flown, but observations were made on only four surveys due to weather conditions. The only adult salmon observed were in the Tiekol Lake system. No coho salmon were observed, but due to wind conditions no surveys were completed after 27 August when coho salmon would have been entering the freshwater systems to spawn.

INTRODUCTION

The State of Alaska has proposed the idea of linking the community of Cordova to Alaska's road system. Under consideration are four proposed routes. This study was conducted as part of the Copper River Highway Environmental Impact Statement. More specifically the purpose of this study was to locate, identify and enumerate spawning salmon populations along three of the proposed routes. The three routes are: Tasnuna Valley, Tiekel Valley and the Wood River Canyon.

METHODS

Aerial surveys from a small fixed wing aircraft were flown on a bi-weekly basis by three surveyors of the Alaska Department of Fish and Game (ADF&G). Surveys were flown from Cordova by Steve Morstad, Assistant Area Management Biologist for Commercial Fisheries Division; Wayne Donaldson, Area Management Biologist for Commercial Fisheries Division and Kenneth Roberson, Area Biologist for Fisheries Rehabilitation, Enhancement and Development Division (FRED) in Glennallen. Each surveyor recorded locations of adult spawning salmon along the three proposed highway routes. Aerial surveys were flown over the Tasnuna River drainage, the outlet of Cleave Creek, Tiekel Lake, and the Uranatina River (Figures 1-5). All adult salmon observed were recorded and entered into the ADF&G's historical aerial survey data base that is archived in Glennallen. Surveys extended from 17 July to 27 August. The goal was to fly into mid October to allow observations of both sockeye and coho returning to these areas. Due to the poor weather conditions aerial surveys after 27 August were not possible.

RESULTS

A total of five surveys were flown during 1992, however, during one survey no data was collected due to high winds. Conditions during the four remaining surveys ranged from good to marginal. Adult sockeye were observed in only two locations Tiekel Lake and Uranatina River (Table 1 and 2).

DISCUSSION

Few adult sockeye and no coho salmon were observed during the surveys. Only two spawning populations were sighted; 150 sockeye salmon in Tiekel Lake and 30 in Uranatina River. From aerial observations, the Tasnuna River drainage appears to be better suited for coho salmon spawning than sockeye salmon spawning. The lower Tasnuna River has the same general features as the Controller Bay area located in the lower Bering River drainage. These features consist of small backwaters created by beaver dams. This type of habitat in the lower delta provides the major spawning sites for coho salmon. Small numbers of sockeye salmon have been observed spawning along the north side of the Tasnuna River Drainage, in the small clear freshets (Kenneth Roberson, ADF&G, Glennallen personal communication). The Cleave Creek drainage was not flown due to its location in a narrow canyon and its turbid, glacial water. The outlet of Cleave Creek was flown but no adult salmon were observed. However, adult sockeye were observed from the ground during 1992 (Dennis Gnath, ADF&G, Anchorage personal

communication). These salmon may have been resting in the less turbulent waters of the mouth of Cleave Creek before continuing their migration up the Copper River. The current project used only fixed wing surveys, so a ground survey to examine the substrate of Cleave Creek was not possible. Cleave Creek is a glacial system so sockeye salmon may have been present, but not visible from the air. No salmon were observed in the Tiekel River itself which has a falls that may be a barrier to upstream migration.

Although observations were limited, survey results suggested that these systems may not be major spawning areas for sockeye or coho salmon. However, these drainages may provide habitat for other salmon life stages that this study did not address. Most sockeye salmon return to the Copper River as four, five, or six year old adults. Therefore, additional surveys should be completed to determine whether the results in 1992 are due to paucity of a particular age class or stock. Surveys of these systems in the past years, however, did not indicate spawners were more abundant than in 1992 (Table 3).

✓ Whiting Falls
212-20-10080-2157 sockeye salmon

✓ Tasuna R.
? 212-20-10080-2159

✗ Cleave CK
212-20-10080 - 2193

✓ Tiekel Lake
212-20-10080-2225-0020

✓ Uanitha R.
212-20-10080 - 2261

Table 1. Aerial escapement indices by date and location for sockeye salmon in the Copper River, 1992. ^a

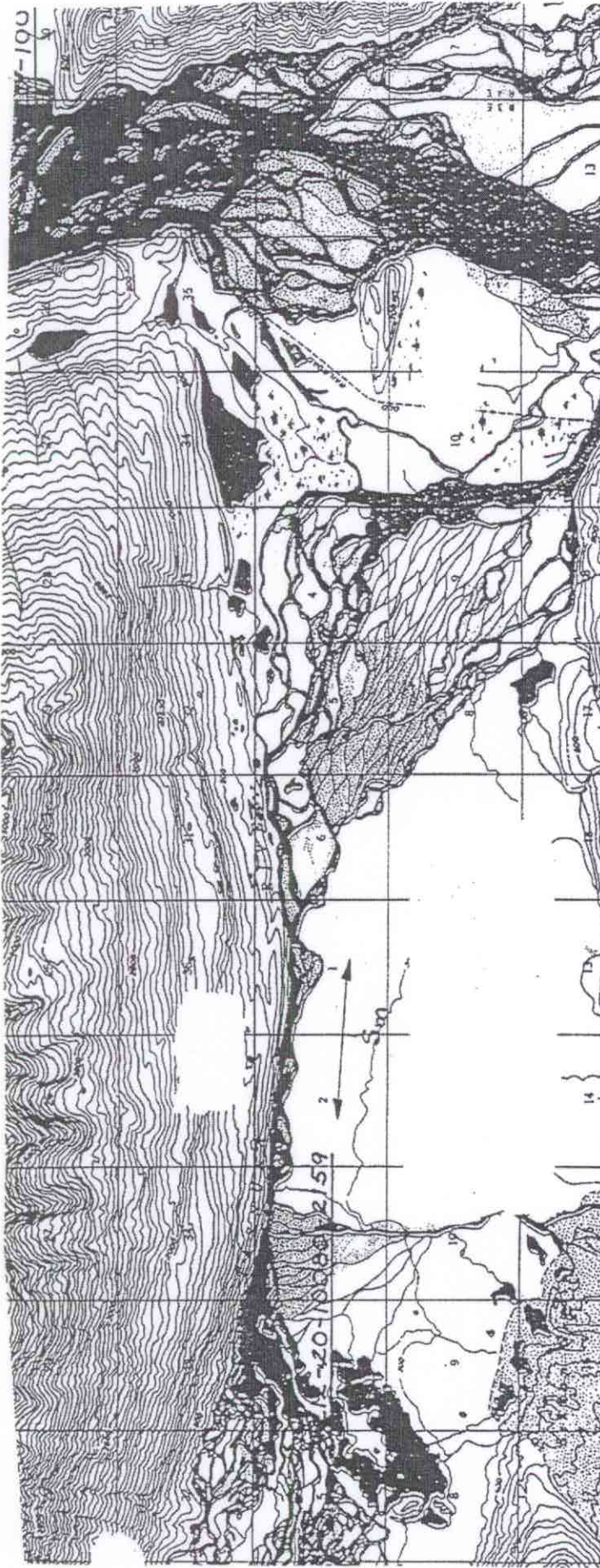
Drainage	17 July	30 July	15 Aug	27 Aug	15 Sept
Whitting Falls	0	NS	0	0	NS
Tasnuna	0	NS	0	0	NS
Cleave Creek	0	NS	0	NS	NS
Tiekel	0	90	150	70	NS
Uranatina	NS	NS	NS	30	NS

a NS= no survey.

Table 2. Aerial escapement indices by date and location for coho salmon in the Copper River, 1992. ^a

Drainage	17 July	30 July	15 Aug	27 Aug	15 Sept
Whitting Falls	0	NS	0	0	NS
Tasnuna	0	NS	0	0	NS
Cleave Creek	0	NS	0	NS	NS
Tiekel	0	0	0	0	NS
Uranatina	NS	NS	NS	NS	NS

^a NS= no survey.



Whitting Falls

Figure 1. Lower Tasnuna River and Whitting Falls, Copper River, 1992.

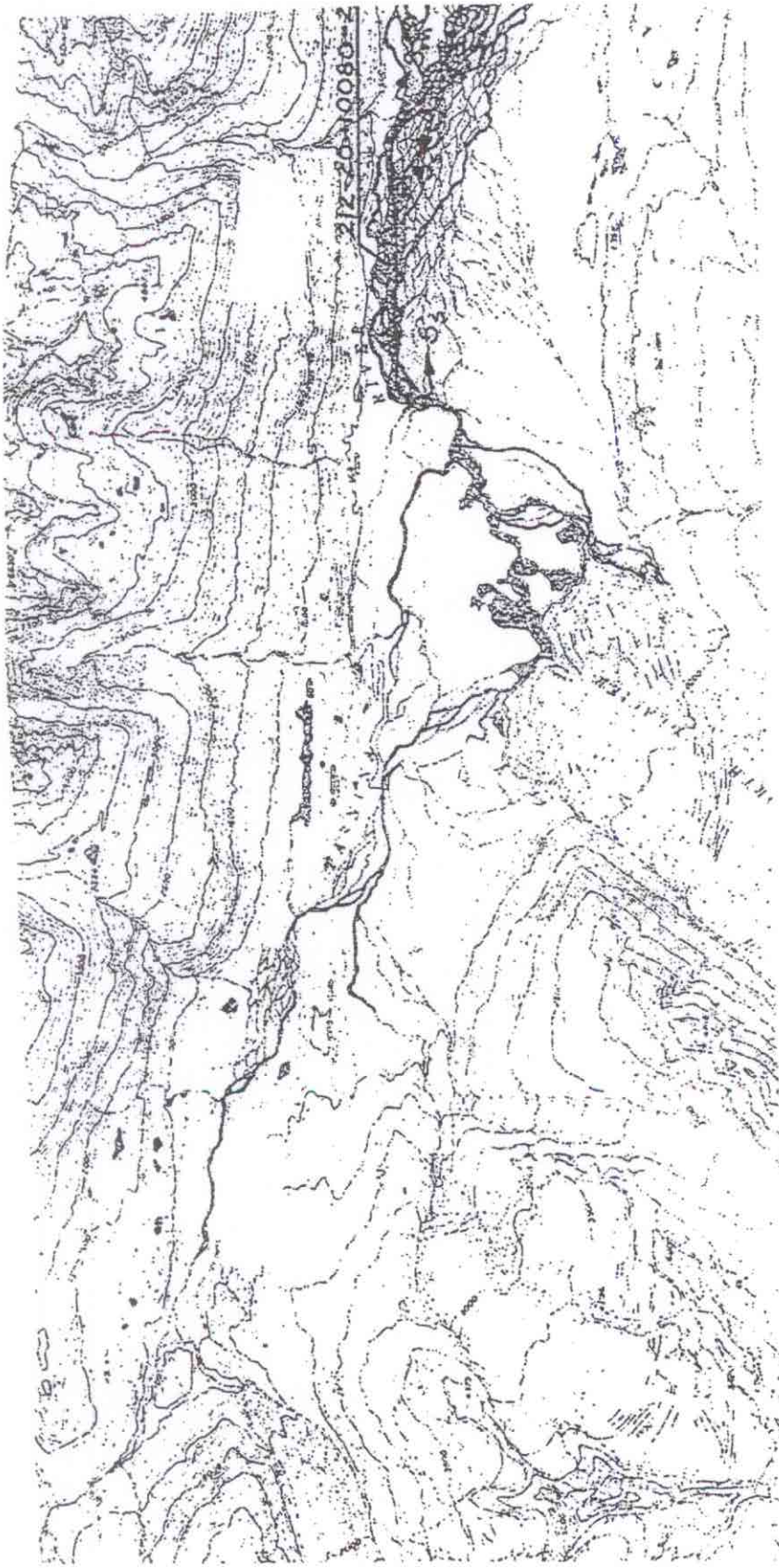


Figure 2. Upper Tasnuna River drainage, Copper River, 1992.

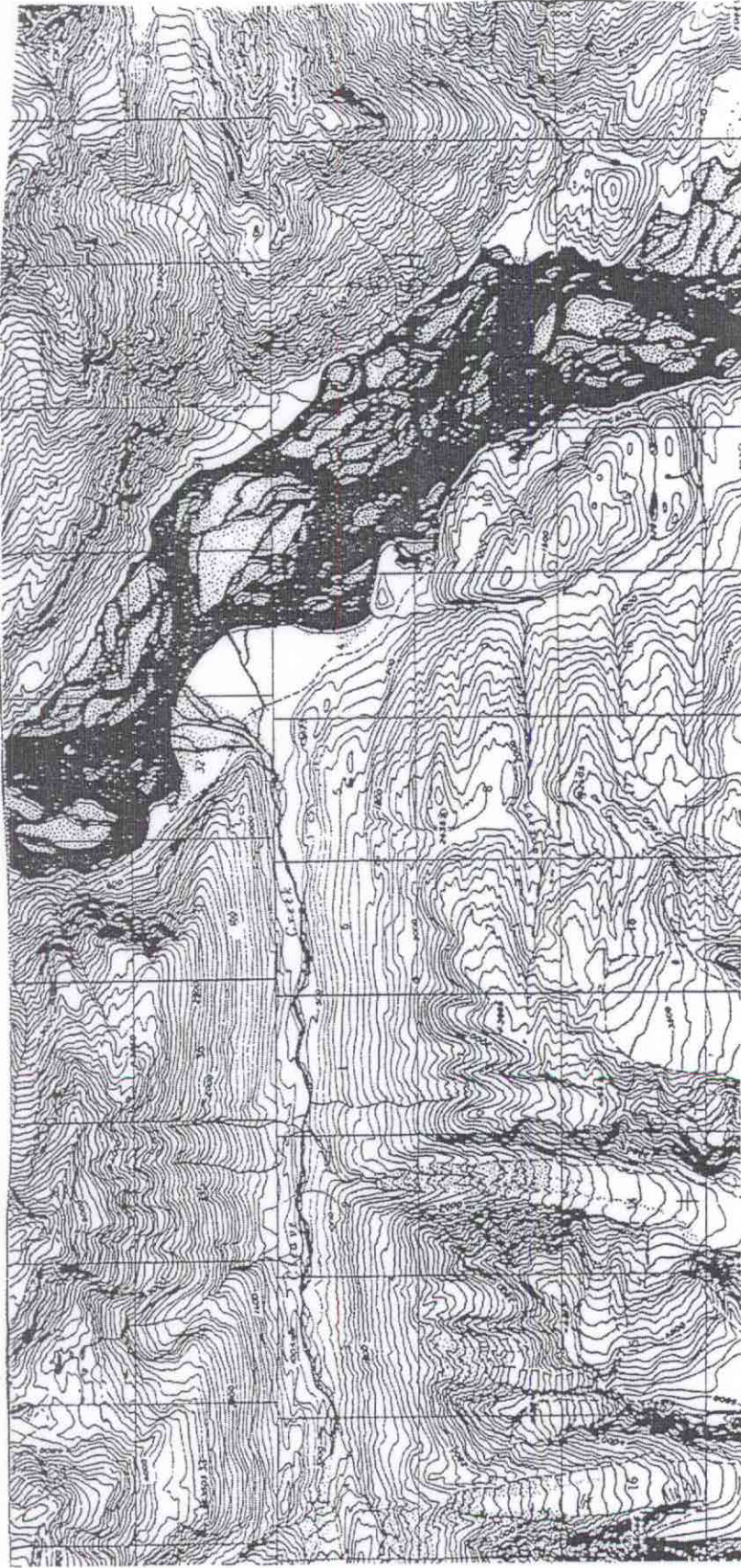


Figure 3. Cleave Creek drainage, Copper River, 1992.



Figure 4. Tiekel River and Tiekel Lake drainage, Copper River, 1992.

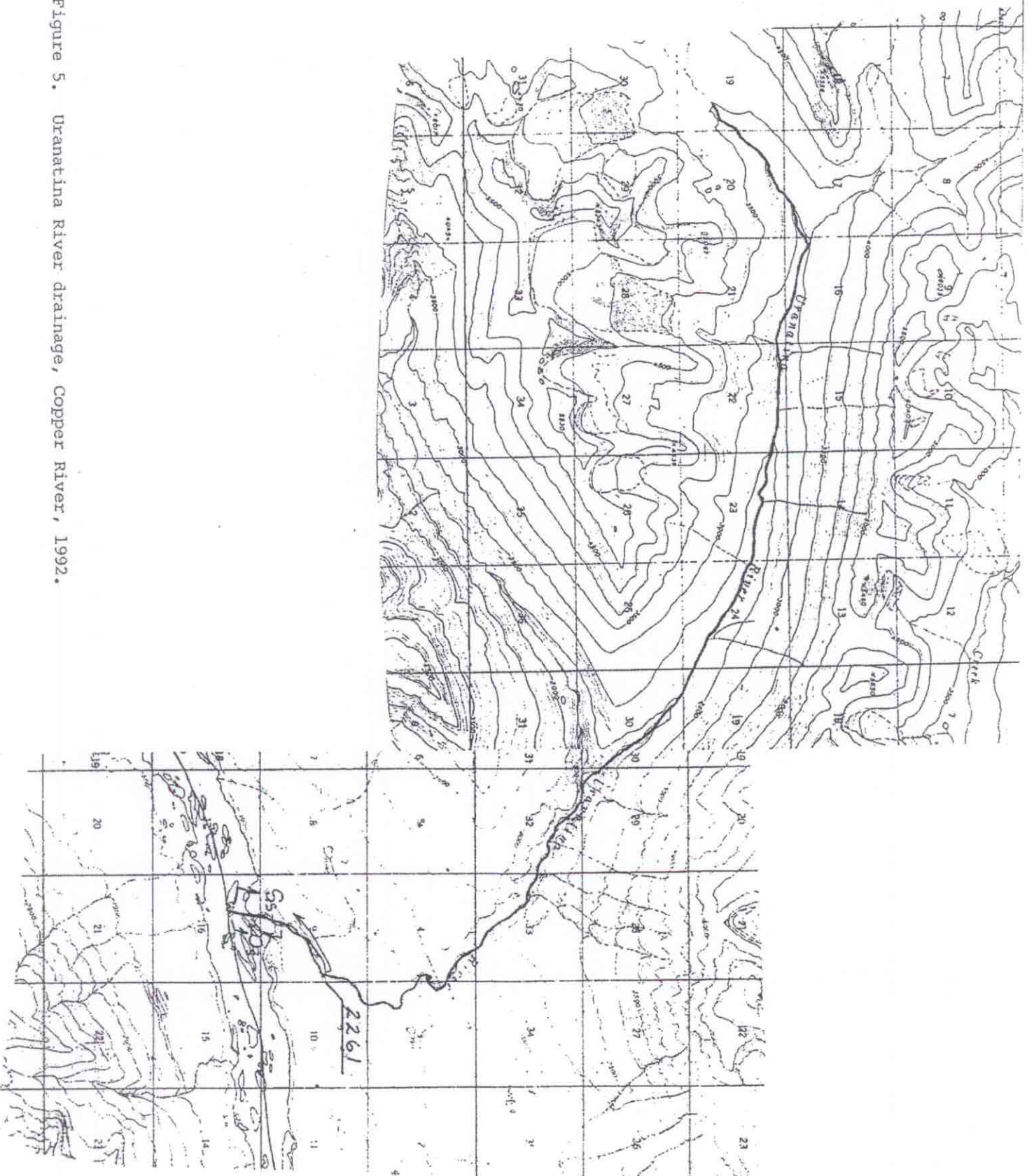


Figure 5. Uranatina River drainage, Copper River, 1992.

